

ACCESSION NUMBER: 2000208634 MEDLINE
DOCUMENT NUMBER: 20208634 PubMed ID: 10746845
TITLE: Comparison of usefulness of estradiol vaginal tablets and
estriol vagitories for treatment of vaginal atrophy.
AUTHOR: Dugal R; Hesla K; Sordal T; Aase K H; Lilleeidet O;
Wickstrom E
CORPORATE SOURCE: Soebergtorget Legesenter, Sandefjord, Norway.
SOURCE: ACTA OBSTETRICIA ET GYNECOLOGICA SCANDINAVICA, (2000 Apr)
79 (4) 293-7.
Journal code: 0370343. ISSN: 0001-6349.
PUB. COUNTRY: Denmark
DOCUMENT TYPE: (CLINICAL TRIAL)
Journal; Article; (JOURNAL ARTICLE)
(MULTICENTER STUDY)
(RANDOMIZED CONTROLLED TRIAL)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 200004
ENTRY DATE: Entered STN: 20000427
Last Updated on STN: 20000427
Entered Medline: 20000414

AB BACKGROUND: **Atrophic vaginitis** is a common condition.
This study compared the usefulness of **estradiol** vaginal tablets
(EVT) and estriol vagitories (EV) in treatment of **atrophic
vaginitis**. METHODS: Ninety-six postmenopausal women with symptoms
of **atrophic vaginitis** were treated for 24 weeks with
either EVT or with EV. Patients used the medication daily for the first 2
weeks of the study, and twice-weekly thereafter. RESULTS: Both EVT and EV
were effective in treating vaginal atrophy and patients in both treatment
groups experienced a significant improvement in vaginal symptoms such as
itching, irritation, dryness, and dyspareunia. At the end of the study
three (6%) EVT treated women reported leakage and none needed to use
sanitary towels. Among the EV treated women 31 (65%) reported leakage and
14 (29%) required sanitary protection. Furthermore, 90% in the EVT group
perceived the medication as hygienic compared to 79% in the EV group, and
49% in the EVT group indicated that the product was easy to use compared
to 28% in the EV group. Endometrial thickness was increased (1.1 mm with
EVT and 0.5 mm on EV) in both treatment groups during the first 2 weeks of
the study, but returned to baseline levels when the frequency of drug
application was reduced to twice-weekly. CONCLUSIONS: **Estradiol**
vaginal tablets provides an effective alternative to traditional forms of
local **estrogen** therap

DOCUMENT NUMBER: 93342960 PubMed ID: 8393609
TITLE: Estrogens and the urogenital tract. Studies on steroid hormone receptors and a clinical study on a new estradiol-releasing vaginal ring.
AUTHOR: Smith P
CORPORATE SOURCE: Department of Obstetrics and Gynecology, University Hospital, Uppsala, Sweden.
SOURCE: ACTA OBSTETRICIA ET GYNECOLOGICA SCANDINAVICA. SUPPLEMENT, (1993) 157 1-26.
Journal code: 0337655. ISSN: 0300-8835.
PUB. COUNTRY: Denmark
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)
LANGUAGE: English
FILE SEGMENT: Priority Journals
ENTRY MONTH: 199308
ENTRY DATE: Entered STN: 19930917
Last Updated on STN: 19960129
Entered Medline: 19930830

AB **Estrogen** receptors and progesterone receptors were detected and quantified in female pelvic floor muscles, urogenital ligaments and in uterus (myometrium) by use of monoclonal antibody assay techniques. Qualitative assessment with immunohistochemical methods further localized the **estrogen** receptors and progesterone receptors to the nuclei of connective tissue cells and striated muscle cells in the levator ani muscle, and to the cell nuclei of smooth muscle cells in the round ligament. These findings fulfil a prerequisite for viewing the pelvic floor and the round ligament as target organs for **estrogens**. The results also contribute to the understanding of the etiological role the reduction in **estrogen** levels has on the increased incidence of prolapse and urinary incontinence after the menopause. For treatment of urogenital mucosal atrophy a new vaginal silicone ring releasing 5-10 micrograms **estradiol**/24 h for a minimum of 90 days has been developed. The efficacy, safety and acceptability of the ring were studied in 222 postmenopausal women with symptoms and signs of atrophic vaginal mucosa. The maturation of the vaginal epithelium, as measured by cytological parameters, was significantly improved during treatment. There were significant decreases in vaginal pH, and these changes correlated well with the cytological evaluation. No proliferation of the endometrium was encountered. The therapy had a significant effect on symptoms and on signs of **atrophic vaginitis**, with cure/improvement registered in > or = 90%. The patient acceptability was high. It is concluded that a vaginal silicone ring giving a continuous release of an ultra-low dose of **estradiol** is an effective and safe treatment for urogenital **estrogen** deficiency. No addition of progestogen is needed.

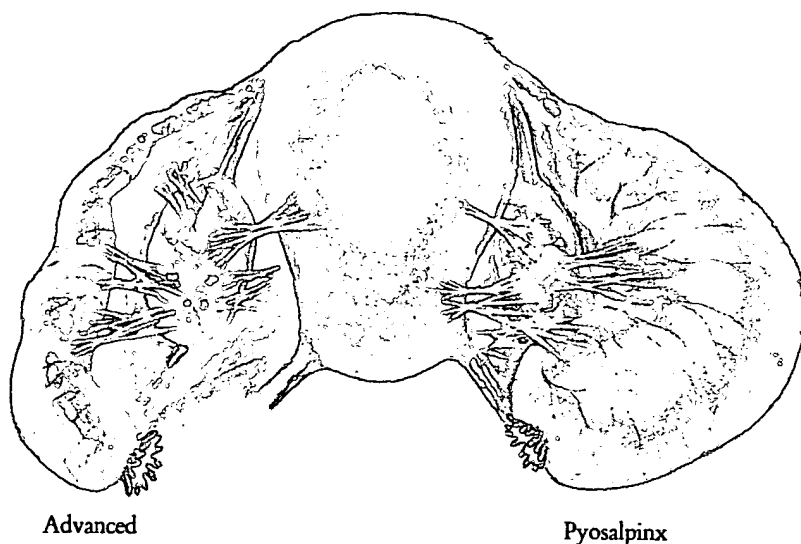


FIG. 20-4. Salpingitis. (From Seidel, Ball, Dains, & Benedict, 1987.)

A lower genital infection, such as vaginitis, may be present for some time before PID develops. The first sign of the ascending infection may be the onset of low bilateral abdominal pain, most often characterized as dull and gradual in onset. If the PID is caused by *Neisseria gonorrhoeae* (a sexually transmitted bacterium), the pain is often associated with menstrual bleeding. The pain of PID may worsen with intercourse. Other manifestations of PID include dysuria (difficult or painful urination) and vaginal discharge.

PID can lead to serious complications, including infertility. Infection that involves the entire peritoneal cavity can cause ileus (paralysis of the bowel). The mortality rate associated with PID is 8% to 9% of cases. Most deaths resulting from PID are caused by septic shock (cardiovascular shock brought on by infection of the blood; see Chapter 29).

Evaluation and Treatment

PID is difficult to diagnose on the basis of symptoms alone. Laparoscopy or culdocentesis and cultures may be necessary for a definitive diagnosis. Treatment involves rest, avoidance of intercourse, and administration of antibiotics. Common antibiotics used include penicillin G or ampicillin with probenecid followed by tetracycline or doxycycline plus cefoxitin. If it is not known which antibiotics or combinations are most effective in preventing long-term complications, such as infertility. From 25% to 40% of women require hospitalization for IV administration of antibiotics, pelvic drainage, peritoneal lavage, and abscess drainage.

Vaginitis

Vaginitis is infection of the vagina. The major causes of vaginitis are sexually transmitted pathogens (see

Chapter 21) and *Candida albicans*. The incidence of sexually transmitted vaginitis is highest in young women. Susceptibility to vaginitis increases after menopause, however, because defense mechanisms mediated by estrogen hormones are somewhat compromised.

The development of vaginal infection is related to alterations in normal defense mechanisms of the vagina, particularly the vaginal pH and histologic character of the vaginal epithelium. The pH of the vagina varies according to age and reproductive status, estrogen levels, and specific area of the vagina. Prior to puberty, vaginal pH is neutral. After puberty the pH fluctuates between 4.0 and 5.0. Variations in pH are associated with cyclic changes in estrogen levels: pH is lowest during the luteal phase of the menstrual cycle (between menstruation and the beginning of menstruation). After menstruation, pH rises to neutral or even alkaline values. Vaginal pH is lowest near the cervix. Vaginal pH is an important regulator of bacterial growth: pH of 4.0 to 4.9 will not support the growth of most pathogenic bacteria. Therefore, variables that alter the vaginal environment, such as estrogen levels or even douching, can lead to the onset of an infectious process.

The composition and thickness of the vaginal epithelium also determine defense capabilities. The thick vaginal epithelium that forms during pregnancy confers the most resistance to bacterial invasion and is best able to maintain an acidic pH. Premenarcheal and postmenarcheal females have the thin vaginal epithelium associated with low estrogen levels. A thin vaginal epithelium is a less effective barrier to invasion by infectious organisms and is less able to maintain an acidic pH.

The use of antibiotics may destroy *Lactobacillus acidophilus*, an anaerobic, gram-positive rod normally found in the vagina that helps to maintain an acidic pH.